STATEMENT OF LUCINDA MINTON LANGWORTHY
ON BEHALF OF THE
UTILITY AIR REGULATORY GROUP
PRESENTED TO
EPA'S ELEVENTH CONFERENCE ON AIR QUALITY MODELING

Good afternoon. I am Cindy Langworthy of Hunton & Williamsand I am pleased to have the opportunity to speak to you again on behalf of the Utility Air Regulatory Group – or UARG. UARG is a voluntary group of electric generating companies and national trade associations. The vast majority of electric energy in the United States is generated by individual members of UARG or other members of UARG's trade association members. UARG participates on behalf of its members in proceedings under the federal Clean Air Act that affect the interests of electric generators.

Air quality modeling has an impact on many of the activities of UARG's members. For example, such modeling influences the siting and design of new power plants, and it affects the operation of existing power plants. To ensure that business decisions concerning these facilities are based on accurate information, it is vital that EPA's recommended models and modeling tools realistically estimate – not greatly overestimate – the impact of power plant emissions on air quality. EPA's Proposed Rule on Revision of the Modeling Guideline explicitly recognizes this. It says that the use of modeling practices that are "overly conservative" may "unnecessarily complicate" permitting. 80 Fed. Reg. at 45351.

But over-conservative modeling practices do more than just “complicate permitting.” “Overly conservative” practices can lead to predictions that air quality problems exist when, in fact, they do not. And that, in turn, can force expensive (and unnecessary) facility redesign or emission reduction measures. It can even lead to cancellation of planned facilities or the shutdown of existing ones in order to address problems that do not exist in the real world. And the more stringent EPA makes its air quality standards, the greater the problems caused by overly-conservative models: there is simply less room for error.

UARG plans to submit detailed written comments on a broad range of issues raised by EPA’s Proposed Revision of the Modeling Guideline. My comments today will focus on one over-arching concern: EPA’s continued reservations about accepting model improvements developed with support from industry groups in order to make timely improvements to EPA’s preferred modeling tools.

Industry groups have repeatedly shown that they are willing, at their own expense (sometimes considerable expense), to retain recognized air quality modeling experts to undertake rigorous, well-vetted projects to develop tools that address identified inadequacies in current models and modeling techniques. They coordinate with EPA on such projects – seeking and responding to feedback received from the Agency. But when industries then provide EPA with improved modeling tools, EPA does not act promptly to incorporate the improved tools in its

Modeling Guideline or guidance. Instead, it has been our experience that approvals of new techniques developed by anyone outside of the federal government are delayed. Often, the best that happens is that after months or years, EPA will label those techniques as “non-default beta options,” which means they cannot be employed unless the user is willing to undertake burdensome, time-consuming, case-specific demonstrations of the worthiness of the new techniques.

Thus, in addition to the cost of retaining recognized modeling experts to carefully develop and test model improvements, the regulated community faces the cost of regulatory delay and uncertainty when seeking a permit to build or modify a source. And a climate of delay and uncertainty discourages businesses from building new sources or upgrading existing sources. Not only does this result hurt the economy, but also it can mean that existing sources with higher emissions are not replaced or updated.

This is what has happened with industry-developed techniques to improve the prediction of short-term pollutant concentrations during low wind speed conditions. EPA took a step in the right direction in 2012, when it incorporated three improved techniques – LOWWIND1, LOWWIND2, and u* – into AERMOD and AERMET. Since then, however, these options have been treated as non-default beta options. And running AERMOD and AERMET with non-default beta options turns those “preferred” models into “non-preferred” or “alternative” ones.

In other words, in order to use an improved technique to predict short-term concentrations during low wind-speed conditions, users find themselves turning “preferred” versions of AERMOD or AERMET into “non-preferred” versions of those models. That burdens potential users of the new techniques with having to demonstrate to permitting authorities the appropriateness of such so-called “alternative” models, from both a theoretical and performance perspective. And this already cumbersome process is about to get worse: EPA has proposed that written approval from the Model Clearinghouse will be required before an alternative model is acceptable.

UARG members had hoped that the proposed revision of the Modeling Guideline would signal a major change in EPA’s attitude towards model improvements developed by those outside of EPA. In particular, we hoped – indeed, we expected – that EPA would announce that it would no longer treat industry-recommended techniques for addressing AERMOD model over-prediction under stable, low wind speed conditions as non-default beta approaches, but would – instead – consider them acceptable by default. Language from the preamble to the proposed rule encouraged us to think that EPA was, in fact, proposing such action. The preamble states that EPA is proposing “updates to the

AERMOD modeling system to address a number of technical concerns expressed by stakeholders," and goes on to explain that among the updates are proposed options "to address AERMOD model over-prediction under stable, low wind speed conditions." 80 Fed. Reg. at 45345. Upon review of the updated User's Guides for both AERMET and AERMOD, however, it appears that the updates to address low wind speed conditions may remain as non-default and/or beta options. Their use may still require the approval of an alternative model.

In addition, it appears that other industry-sponsored model development work has not been incorporated into the default models. Although a modified version of the ARM2 NO_2 screening technique developed with industry support has been incorporated into AERMOD, 80 Fed. Reg. at 45346, the AERMOD User's Guide indicates that this technique is also a non-default, beta option. And an industry-developed improved chemistry algorithm for CALPUFF has not even been considered, as EPA proposes to downgrade CALPUFF to the status of a screening model. Furthermore, EPA seems to have concluded that the SCICHEM model, a sophisticated Lagrangian model that industry has developed at considerable expense and with significant feedback from EPA, will not even be considered for more than screening model status. Specifically, the preamble to the Proposed Rule indicates that "a Lagrangian model may be the type of model" to be used “on a case-by-case basis” for a “second level” screening assessment for Class I significance and cumulative increment analyses. 80 Fed. Reg. at 45361.

In these times of limited budgets, EPA should take advantage of the fact that industries are willing to undertake, at their own expense, model improvement projects to address identified inadequacies in the current suite of tools. EPA should be able to review and approve the use of such techniques promptly and not let such improvements linger as “beta options” for years.

The above-described options to address AERMOD model over-prediction under stable, low wind speed conditions have been beta options for three years. Three years as a beta option is more than long enough. The Modeling Guideline should be revised now to give appropriate stature to reviewed and validated tools that recognized modeling experts have developed with financial support from industry. Such improvements should no longer be relegated to alternative model status, where their use requires lengthy additional reviews on a case-by-case basis.

Moreover, it should not be necessary for the regulated community to have to wait for more than ten years in order to see improvements in modeling tools incorporated into the Modeling Guideline. Nothing in the Clean Air Act requires that a proposal to revise the Modeling Guideline be tied to one of the triennial modeling conferences. Nothing says that changes to the Guideline must all be made at one time instead of as each new tool or option becomes available.

In summary, UARG continues to urge EPA to adopt a more agile approach to updating the Modeling Guideline to ensure that it keeps pace with the needs of all stakeholders and with the efforts of stakeholders to provide the Agency with well-conceived, fully-vetted improvements to existing modeling techniques. UARG encourages EPA to take full advantage of model development work being performed by recognized experts and funded by the regulated community. A good first step in that direction would be for the Agency to revise its proposed revisions to the Modeling Guideline by classifying helpful new modeling techniques as acceptable by default -- not as non-default or beta options. Furthermore, once the technique is accepted, Model Clearinghouse approval for use of such new techniques should not be required.

Even if taking such actions would require the current proposed Modeling Guideline revision to be re-proposed, that should not stop the Agency from taking that correct step. UARG believes that any delay caused by a re-proposal will be offset by the time saved by those conducting modeling without the need for undergoing time-consuming alternative model approvals. Furthermore, UARG recommends that EPA revise its Modeling Guideline much more often than once every 10 years. EPA should put in place a mechanism that ensures that the Agency will timely revise its Modeling Guideline whenever new modeling techniques have been shown to improve model performance. Moreover, the Agency should consider whether revisions to the Guideline are needed each time it revises a NAAQS, and – if they are – should proceed to make those revisions promptly.